

TECO Mobility grant

Ecological Engineering Applications in Tamil Nadu, India

Beneficiary of the grant- James Michael Shaw

Home Institution/Company (EU)- Biomatrix Water Solutions Ltd.

Host Institution/Company (INDIA)- Pitchandikulam Forest

Period of the stay in India- 80 days



TECO Project

***Technological ECO-innovations for the quality control
and the decontamination of polluted waters and soils***

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Website: www.tecoproject.eu

Objectives of the project:

- To support Pichandikulam Forest (PF) and Joss Brooks, the Director, in scoping, specifying, costing and proposing new ecological engineering projects.
- To enhance PF cash flow management through tracking Work in Progress (WIP), invoicing, payments, cash shortfalls, banking and reserves.
- To develop and present innovative solutions to pollution problems in Chennai, including the Adyar and Coombe rivers and the flyash problems of thermal power stations in Northern Chennai.
- To ensure a smooth installation of Biomatrix Floating Islands in three locations in Chennai.
- To support Farm Hand with grant writing and presentations.



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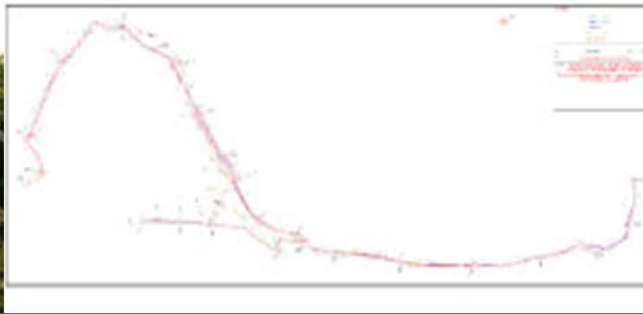
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Activities carried out during the period of the grant:

- The PF Twin Lakes contract with Tata Consultancy Services in Siruseri, South Chennai was secured in October 2018. The pre-contract work included frequent site visits, estimating earth moving to construct eight islands and four hills with total earth volume of 163,000 cubic metres.
- Work on developing & presenting innovative solutions to PF opportunities, including bioremediation of the Mambalam Canal, ecological engineering of the Ennore Creek Flyash issue & scoping the TANGEDCO Villupuram Pilots.
- For Biomatrix negotiating three sites with adequate security for the Floating Islands. A suitable shipping broker was located. Scoping work was carried out for the solar PV power systems for the Floating Islands.
- Working with the Heriot Watt University Consortium on researching and developing an innovative approach to the Smart Energy & Social Cohesion in Agriculture (SESCA) grant application to InnovateUK Energy Catalyst. Writing part of the application.



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Main outcomes:

- Work starts on the construction of the Twin Lakes project on December 15th 2018.
- During the Water as Leverage (WaL) four-day conference in Chennai, four projects were proposed and accepted as a WaL first phase. These are Mambalam Canal, Chitra Nagar low income housing, which has flooding problems, no sewage treatment and degraded infrastructure.
- The other two projects are Mylapore and Koyambedu Market, both of which have inadequate sewage treatment and areas that are subject to flooding and require new infrastructure for groundwater recharge.
- The Biomatrix Floating Islands are scheduled to arrive Chennai on December 28th.
- The SESCA project has Farm Hand as Lead and other smart irrigation opportunities are current.



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